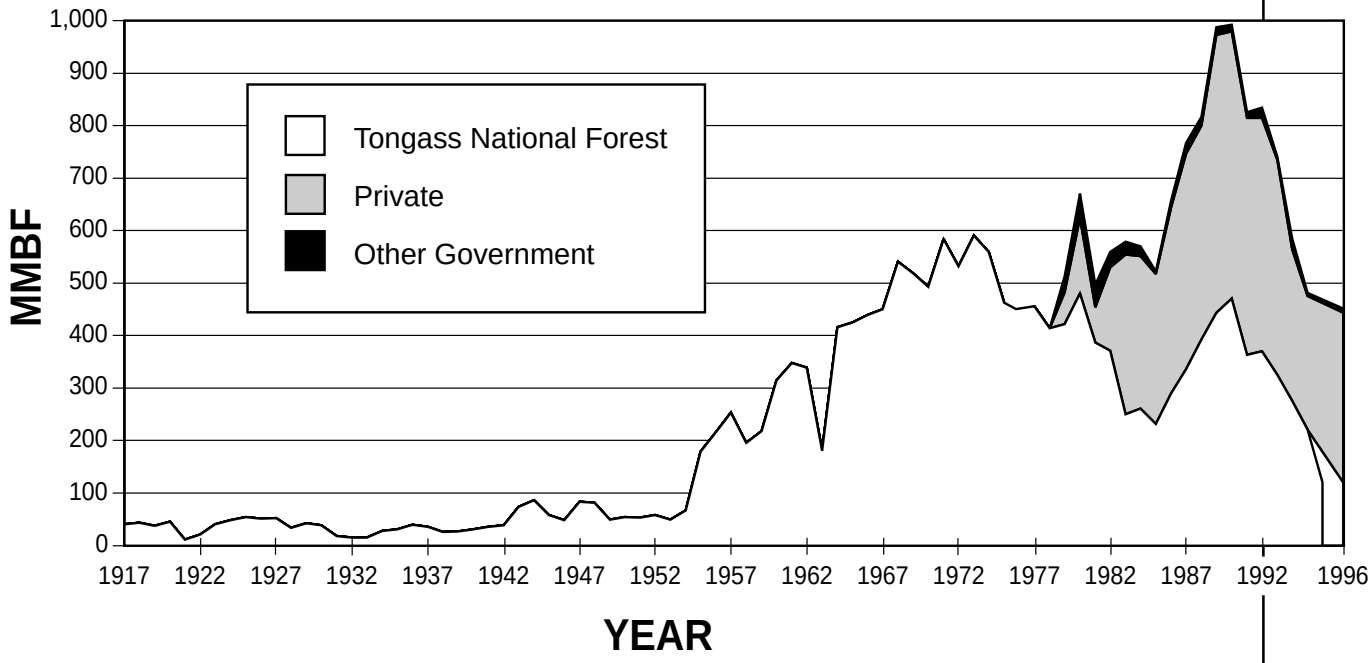
THE WOOD PRODUCTS INDUSTRY IN SOUTHEAST ALASKA

Figure 2. Annual Timber Harvest - Southeast Alaska



HISTORICAL BACKGROUND

Prior to the existence of the pulp industry in Southeast Alaska, timber was harvested primarily to meet the needs of the resident population and the ever-expanding fishing and mining industries. Timber was used as material for fish traps, piling, packing cases, mine timbers, dock piles and timbers, and lumber for construction.

By 1909, nearly all of the commercial timber in Southeast Alaska was incorporated into the Tongass National Forest. Timber harvest in the region averaged about 15 million board feet annually. Most of the timber was used locally, although some products were shipped to Seattle. World War I increased the demand for fish and the use of timber for pilings, fish boxes and construction. The war also increased the use of Sitka spruce in airplane manufacture, some of which was supplied from Alaska.

In 1920, the annual harvest volume reached 20 million board feet, including a large volume of free use for the Alaska Railroad and other entities. Even at this point in time, mills in the Puget Sound area posed a threat to local processors, as large volumes of Douglas-fir were shipped to Alaska at costs below those of local suppliers. Despite its relatively high production costs, the timber industry increased its stronghold in Alaska throughout the 1930s. As a result, the State's import share of total wood consumption dropped to 16 percent, compared to an average of 68 percent in the previous decade.

The 1940s brought renewed interest in Alaskan spruce as a source of material for airplane manufacture to support the war effort. Through a special program, logging on the Tongass was intensified to supply logs to mills in Puget Sound for further processing. The concentrated effort continued until early 1944 when lumber was replaced by metal in the manufacture of airplanes. When wooden fish boxes were displaced by cardboard cartons, and market demand declined following the war, the need to develop new markets for Alaskan timber intensified.

Nationally, the Administration and Congress also wanted to bolster the Southeastern Alaska population in response to the threats of the Japanese Empire and later, during the Cold War, the Soviet Union.

The 1950s marked a turning point for the timber industry in Southeast Alaska and established a foundation for development that remained in place for over forty years. An extensive search for new industrial development to offset the declines in fishing and mining activity concluded in 1951 with the signing of a fifty-year Forest Service timber contract. This contract for timber supply underpinned the construction and operation of the first large-scale pulp mill in Southeast Alaska. The Ketchikan Pulp Company (KPC) obtained cutting rights for approximately 8.25 billion board feet of timber on the north half of Prince of Wales Island and the northwest portion of Revillagigedo Island. In exchange, the company agreed to build a mill of not less than 300 tons daily operating capacity. A series of upgrades to the plant increased its capacity to 650 tons per day, or 200,000 short tons annually. At the time it was built, the mill cost nearly $52.5 million to complete and represented the largest single industrial investment made in the Territory of Alaska.

During the same time period, Japan turned to Alaska in search for timber to rebuild its postwar economy. Much of Japan's native timber resources had been lost during the war, serving to aggravate the shortage in Japan's domestic wood supply. In 1953, after preliminary investigation of the feasibility of the venture, Alaska Lumber and Pulp Company, Inc. (ALP) was incorporated in Juneau with one hundred percent investment by its Japanese parent firm, Alaska Pulp Company, Ltd. Shortly afterward, in July 1954, Wrangell Lumber Company, Inc. was also incorporated by the Japanese parent firm for the purpose of initiating a wood processing business in Alaska. In October 1957, a second long-term contract was agreed upon, committing 5.25 billion board feet of timber to be supplied over a fifty-year period. The primary sale area included Baranof Island and portions of Chichagof Island. In exchange, ALP constructed a pulp mill in Sitka with an initial production capacity of 340 tons per day. Upgrades and expansion subsequently increased the mill's capacity to 600 tons per day or 192,000 short tons annually. The mill was completed and operational in November 1959 at an approximate cost of $66 million. It was the first major foreign investment made by Japan after World War II.

The region's pulp mills represented a foundation for industry structure as well as a substantial source of revenue to their host communities. Pulp manufacturers utilized by-product chips from independent sawmills, laid the foundation for small operators to acquire timber supplies, provided an outlet for wood that could not be processed by others, and helped to buffer cyclical trends in wood products markets.

The 1960s signaled a new market era for sawmilling in Southeast Alaska. An upward spiraling economy increased Japan's reliance on Alaska for timber to be used in home construction and industrial development. The bulk of the products were shipped over-

seas in the form of rough sawn cants or dissolving pulp. Over the course of five years, Alaska's sawnwood exports to Japan nearly quadrupled, expanding from 68 MMBF in 1965 to 315 MMBF in 1970.

At the same time, despite the growing population and increasing demand for building materials, Alaskans became much less dependent on local suppliers for their wood products. Economic growth around Southcentral ports improved transport efficiency to the region and lowered the cost of importing lumber and lumber substitutes from the Pacific Northwest states. In addition, building specifications required an air or kiln-dried product, neither of which was offered locally. By 1968, lumber was no longer being shipped from Southeast Alaska to other locations in the state.

Alaska's lumber exports continued to increase throughout the 1960s, peaked in 1973, and then declined until 1985. The volume of lumber exported from Alaska dropped off in the early 70s following a sharp decline in the number of Japanese housing starts (along with a decline in the share of wood-based houses) and increased competition from lumber producers in the Pacific Northwest and British Columbia. Japanese soft-wood lumber consumption fell by 22 percent between 1973 and 1985; however, Alaska's exports to Japan and total production fell even more steeply, declining by 78 percent over the same time period.

Although some of the decrease in lumber exports from Alaska in the 1970s and 80s can be attributed to conditions in the Japanese market, increased competition impacted Alaskan lumber trade as well. In the mid-70s, lumber producers in the Pacific Northwest began to look beyond the United States for markets; in part attempting to find outlets for products during U.S. recessions, and in part responding to long-term trends in domestic purchasing patterns. At the same time, and for similar reasons, producers in British Columbia also increased shipments to overseas markets. As a result, Alaska's role in Pacific Rim markets was sharply diminished.

Alaska's lumber manufacturers enjoyed yet another resurgence in demand in the early 1990s when housing starts in Japan hit an all-time high. Following a generally upward trend throughout the late 1980s, Alaska's lumber exports reached a peak of 225.5 MMBF in 1990. Indeed all of Alaska's wood-related sectors prospered in 1990 with an unprecedented total export value of $641 million in logs, lumber, chips and dissolving pulp. Since that time, output and employment have steadily declined.

At the end of 1992, excess production left producers with record inventories of chemical grade market pulp. Mill closures and extended downtime throughout 1993 finally pulled inventories back in line with demand but not until inflation-adjusted prices for most grades had dropped to their lowest point since the 1930s. Citing adverse world market pulp conditions, increasing production costs, and a shortfall in the amount of timber available at an affordable price, the Alaska Pulp Corporation (APC) announced its intent to suspend operations at the Sitka pulp mill at the end of September 1993. The company's long-term timber contract was subsequently terminated by the Forest Service in April 1994. The company shut down its sawmill in Wrangell, Alaska at the end of November 1994.

World pulp markets recovered in 1995 and prices rebounded to unprecedented highs. The rapid recovery from the worst market conditions in years was nothing short of remarkable, and prices nearly doubled in a nine-month span. At the same time, significant

environmental concerns were developing in the U.S. and Europe with regard to the dioxin released during chlorinated pulp bleaching processes. The Environmental Protection Agency (EPA) began a rigorous assessment and proposed regulatory changes to address these concerns. Ketchikan Pulp Company (KPC), owners of Southeast Alaska's remaining pulp mill, began looking into the prospect of converting to a chlorine-free manufacturing process.

In 1996, KPC estimated that investments totaling $200 million would be needed to keep the company's Ketchikan mill competitive in world pulp markets and to meet EPA pollution requirements. At the same time, the company was facing the end of its long-term contract in just eight years. KPC officials determined there was an immediate need to secure an extension of the contract extension and to revise some of the contract terms before additional investments could be justified. Federal legislation intended to satisfy these requirements encountered strong resistance and shutdown of the mill was targeted for March 1997.

In lieu of a legislative solution, the company sought a negotiated settlement with the Clinton Administration. An agreement was reached in February 1997. While the company's long-term timber contract was canceled under the settlement, it was agreed that KPC would receive 300 MMBF of contract close-out volume over a three year period. This timber supply would allow for the continued operation of the company's sawmills in Metlakatla and Ketchikan. Also under the agreement, the U.S. government agreed to pay KPC $140 million to resolve all past and future legal claims.

EXISTING WOOD PROCESSING FACILITIES AND PRODUCTS MANUFACTURED IN SOUTHEAST ALASKA

The forest products industry in Southeast Alaska today includes logging, chipping and sawmilling. Except for many portable-type mills, the sawmills are basically breakdown mills with limited ability to manufacture boards, dimension, shop, flooring or other specialty products. Plywood, veneer and fiberboard are not manufactured in the region.

Lumber shipped out-of-state is typically sized to allow for remanufacture (i.e. resawing and ripping). Because shipping costs are volume-based there are no freight advantages for exporting dry lumber from Alaska. The two small kilns in the region are employed only infrequently. While the existing cant mills could be used to break down logs into "2x4s" and other dimensions, the quality would probably be lower relative to products manufactured with precision equipment in other regions. Either additional investments would be needed to make the quality of Alaskan dimension lumber equal to that produced elsewhere, or Alaska's lumber would need to be priced lower to offset its lower quality.

Thus, current bread-and-butter markets for the larger Southeast Alaska sawmills are raw-material markets, i.e., markets for logs, cants, squares, baby-squares and chips. The major customer is Japan with some amounts of high quality shop being shipped to Washington for drying and further manufacture. Some locally produced dry surfaced lumber, paneling, and other construction products are used in Alaska, but most are imported from the Lower 48 states or Canada.

Most of the mills in Southeast Alaska produce less than 6 MMBF of lumber per year (Table 8). Many are portable sawmills (not on permanent foundations) sawing U.S. Forest Service timber from "personal allotments" on contract. These mills typically cut less than 200 thousand board feet (MBF) per year. Sources of timber to run the mills commonly include wood gathered under Forest Service "personal use" permits and State beach log salvage permits. The greatest concerns among these smaller mills seems to be with what they can do with their sawmilling residues.

Table 8. Southeast Alaska Sawmills*

	Equipment	Estimated Capacity (MMBF)	Location	Employ-ment	Comments
3-D Logging	Mob Dim Planer/Molder	.50	Whale Pass	7	Hemlock, Spruce, Cedar, Custom Cuts, Reman
Beattie, Jay		.02		1	Hemlock, Spruce, Custom Cuts, Music/Specialty
Belk, Barney	Mob Dim	.10	Craig	2	Hemlock, Spruce, Cedar, Custom Cuts
Benson, Leroy	Mob Dim	.20	Haines	1	Hemlock, Spruce, Custom Cuts, Music/Specialty
Big Salt Lumber	Mitey-Mite	.30	Craig	2	Hemlock, Spruce, Cedar, Custom Cuts, Music
Black Bear Cedar	Shingle Mill	1.25	Thorne Bay	9	Cedar, Shakes, Shingles
Byrd, Victor	Mob Dim	.05	Tenakee	3	Hemlock, Spruce, Custom Cuts
Carson, Snapper	Mob Dim	.03	Ketchikan	1	Hemlock, Spruce, Cedar, Custom Cuts, Music/Specialty
Christensen's Lumber		.03	Petersburg	1	Cedar, Custom Cuts, Music/Specialty
Clark, Ed	Mob Dim	.15	Thorne Bay	2	Cedar, Custom Cuts
D & L Woodworks	Band Saw	.80	Hoonah	4	Hemlock, Spruce, Custom Cuts, Music
DeBoer, Morgan	Mob Dim	.04	Gustavus	1	Hemlock, Spruce, Custom Cuts
Dupertuis, Jack	Band Saw	.03	Thorne Bay	1	Hemlock, Spruce, Cedar, Custom Cuts, Music/Specialty
Eads, Earnie	Mob Dim Band Saw		Thorne Bay	8	
Engals, Gene	Wick Mill	.05	Hollis	1	Spruce, Cedar
Ensley, Jim		10.00	Kassaan	5	Hemlock, Spruce, Cants
Gateway Timber Company			Thorne Bay	2	
Hamar, George	Mob Dim	.025	Coffman Cove	1	Hemlock, Spruce, Cedar, Custom Cuts, Music/Specialty
Herring Bay Lumber	Sawmill	9.50	Ketchikan	2	Hemlock, Spruce, Cedar, Custom Cants
Icy Straits Lumber		10.00	Hoonah	12	Hemlock, Spruce, Cants
Jones, Jerry	Salvage Log	.20	Craig	1	Cedar, Custom Cuts
Jones, Warren	Mob Dim		Craig	2	Hemlock, Spruce, Cedar, Custom Cuts
KPC Annette Island Mill		70.00	Metlakatla	100	Cants
KPC Ward Cove Mill	Sm. Log Mill	50.00	Ketchikan	50	Band, Dim., Studs, Cut Stock
Last Chance Enterprises	Mob Dim	.30	Thorne Bay	3	Hemlock, Spruce, Cedar, Custom Cuts, Music
Menakee, David		.11		1	Hemlock, Spruce, Custom Cuts, Music/Specialty
Metlakatla Forest Products		10.00	Metlakatla	23	Hemlock, Spruce, Cants
Morrison, Chris		.05	Petersburg	1	Cedar, Custom Cuts, Music/Specialty
Olsen, Bob	Mobark Mill	.50	Petersburg	5	Hemlock, Spruce, Cedar, Custom Cuts

	Equipment	Estimated Capacity (MMBF)	Location	Employ-ment	Comments
Pacific Rim Cedar	Circle Saw	7.00	Wrangell	11	Hemlock, Spruce, Cedar, Cants
Porter, Ralph	Volks Mill Band Saw	.30	Naukiti	1	Custom Cuts
Rice, John	Mob Dim	.10	Coffman Cove	2	Hemlock, Spruce, Cedar, Custom Cuts
Richter Enterprises	Mitey-Mite	.10	Edna Bay	7	Hemlock, Spruce, Custom Cuts
Rubke, Toby	Band Saw	.004	Tenakee	1	Spruce, Custom Cuts, Music/Specialty
Salee, Dave	Mob Dim	.03	Ketchikan	2	Spruce, Cedar, Custom Cuts, Music/Specialty
Seaborne Lumber		24.00	Ketchikan	25	Operation Pending
Shipwright Coop.	Mob Dim	.05	Sitka	2	Spruce, Cedar, Custom Cuts, Music/Specialty
Short, Bill		.06		3	Spruce, Cedar, Custom Cuts, Music/Specialty
Smith, Pete	Wood Mizer	.02	Ketchikan	2	Hemlock, Spruce, Cedar, Custom Cuts, Music/Specialty
Star Cedar Products	Shingle Mill	2.00	Thorne Bay	7	Cedar, Shakes, Shingles
The Mill, Inc.		10.00	Petersburg	11	Hemlock, Spruce, Custom Cants
Trumble, Larry	Portable Band Saw	.04	Klawock	2	Spruce, Cedar, Music/Specialty
Viking Lumber		30.00	Klawock	35	Vertical Grain Shop, Cants
Williams, John	Mob Dim Mitey Mite Resaw	.04	Sitka	1	Spruce, Cedar, Custom Cuts
W.R. Tonsgard Logging/Lumber		1.00	Juneau		Hemlock, Spruce, Cedar, Custom Cants
TOTAL		****238.979**		**264**	

* This table is for sawmill comparison purposes only. No attempt has been made to verify whether the estimated capacity figures are installed capacity or current production. In its present form, the table should not be construed as a reliable guide to the exact amount of timber that could be processed in Southeast Alaska.

** Silver Bay Logging is working on a proposal to modify the former APC Wrangell sawmill, now closed, into a value-added facility. Plans have not been finalized, but, if developed, the new facility would add significantly to Southeast Alaska's estimated capacity. During its previous period of operation, the Wrangell sawmill had an installed capacity of 110 MMBF.

An experimental project that may hold potential for future timber industry byproducts is Sitka Tribal Enterprises' eight month pilot project to test operational procedures and materials for a facility producing nutrient-rich compost from fish and timber waste. With a grant from the Alaska Science and Technology Foundation and other funding, the project will first determine what composting practices for fish and wood waste are best suited to Southeast Alaska. If the project advances beyond the test phase, compost products will be produced and marketed on a larger scale under the name Alaska Earth Works.